GIS:

GIS – (Geographic Information Systems) Used as a system for storing and manipulating geographical information on computer. Allows users to investigate, manage, and develop spatial data.

GUI – (Graphical User Interface) Allows users to interact with a computer program through a display screen or window.

Database - A structured set of data held in a computer, which is accessible in various ways. In GIS it is often related to a geographic feature.

Coordinates – Point of spatial reference on a spherical level (latitude/longitude) or a planar level (X/Y).

Projection – Planar reference to transform spherical coordinates (latitude/longitude) into a known surface or plane, allowing for accurate measurements of distance and area. For most cases, the Iowa DNR uses **NAD83 UTM Zone 15N**.

Coordinate Reference System – Within Quantum GIS, a list of codes referencing to Projections, Datums and Ellipsoids used to accurate display spherical data. (**NAD83 UTM Zone 15N: EPSG:26915**)

Extent – A boundary or limit of geographic area often displayed on a map. Extent is changed by zooming in and out.

Scale – A ratio which represents the distance on a map to an actual distance on the ground.

Vector – Data format used for mapping linear things such as highways (lines), hydrants (points) or boundaries (polygons).

Raster – Data format used to represent attributes of a fixed point or pixel. Often a surface showing floating values (elevation, aerial photo, and satellite image) or fixed values (land cover).

Attributes – A variety of qualities descriptions, notation or definitions associated with a geographic feature or pixel.

Symbology – A set of established shapes in a variety of sizes and color schemes used to represent a theme or attribute.

Layer Properties – Associated style, labels, fields, general info, metadata, actions, joins, diagrams, and overlays for a specific vector or raster.

Basemaps- Layer containing essential reference data in which vectors and rasters can be overlaid on top of, often used for map making

WMS – (Web Map Service) a standard protocol for serving geo-referenced map images or layers over the internet that are generated by a map server.

Intersection – An overlap of two or more spatial datasets that preserves all attributes from each dataset.

GPS – (Global Positioning System) A navigational system involving satellites and computers that can determine the latitude and longitude of a receiver on Earth by computing the time difference for signals from different satellites to reach the receiver.

Georeferencing – Used to establish the existence of a dataset on a physical surface within a Coordinate Reference System.

KML – (Keyhole Markup Language) An XML-based language schema for expressing geographic features on Internet-based maps within a browser. KML was developed for use with Google Earth and Google Maps.

Tabular Join - A method of appending a feature's attributes with another feature based on shared attributes between both futures like a unique ID or Key.

Spatial Join – A method of appending a feature's attributes with another feature based on relative spatial location.

SQL – (Structured Query Language) An international standard syntax or language structure for database manipulation.

Source Water:

Source Water Protection – A federally-funded program designed to proactively address public drinking water concerns. Includes source contamination, natural water quality, and water quantity.

Aquifer - An underground water-bearing layer of permeable material that will yield a usable quantity of water.

Delineation - An estimation of the area contributing water to your public wells.

Capture zone - A computer modeled delineation, typically using 2-5-and 10 year time of travel periods.

Time of travel - A duration of time specified to determine the distance and area that water will travel.

Susceptibility - A measure of an aquifer's potential to become contaminated. It does not imply either good or poor water quality.

Confining layer - An underground layer of impermeable material which slows the movement of water.